

REMARKS

Claims 2-45, 47-56, 58-62 and 65-77 are pending in the present application. In the above amendments, claims 65, 66, 71, 73 and 74 have been amended. Applicants believe these changes add no new matter to the application and are fully supported by the original disclosure.

In the Office Action mailed July 12, 2005, the Examiner rejected claims 65-77 and allowed claims 2-45, 47-56, and 58-62. The allowance of claims 2-45, 47-56, and 58-62 is noted with appreciation.

Applicant respectfully respond to this Office Action.

Claims 65, 71 and 73

On page 2, the Examiner states that “Gubbi discloses a system in a wireless communication system device (node B, i.e., CLIENT) receiving portions ([1] [2] [3] [4]) of a multi-slot packet ([1] [2] [3] [4] [5] [6] [7]) at a first data rate (bandwidth), . . .” Applicants respectfully disagree with the Examiner. The numbers within square brackets are various packets within a network frame 52. They are not multiple slots of a multi-slot packet. See col. 7, lines 10-16. “As shown, within a network frame 52, various packets (designated by the use of numbers within square brackets in the illustration) may be transmitted from one node to another . . .” Thus, Gubbi does not disclose receiving portions of a multi-slot packet, but instead Gubbi discloses receiving various packets. Therefore, Gubbi does not disclose receiving portions of a multi-slot packet as disclosed in claims 65, 71 and 73.

The Examiner continues “each portion ([1] [2] [3] [4] [5] [6] [7]) received during a separate time slot, the multi-slot packet ([1] [2] [3] [4] [5] [6] [7]) having a maximum number of time slots ([1] [2] [3] [4] [5] [6] [7]) for transmission . . .” It is unclear from col. 7, lines 15-25, or from FIGS. 3 and 8, why the Examiner considers the seven packets ([1] [2] [3] [4] [5] [6] [7]) a maximum number of time slots. FIG. 3 shows packets ([1] [2] [3] [4]) in a first network frame and packets ([3] [4] [5] [6] [7]) in a second network frame. FIG. 8 does not show packets ([1] [2] [3] [4] [5] [6] [7]) at all. Instead, it shows packets ([14] [15] [16] [17]) in a first network frame and packets ([18] [19] [20] [21]) in a second network frame. Thus, the seven data packets, i.e., ([1] [2] [3] [4] [5] [6] [7]) cited by the Examiner is not shown as a maximum number of time slots for transmission in either FIG. 3 or 8. It is also noted that Goodings does not disclose a maximum number of time slots for transmission either. Instead, Goodings discloses that “[t]he

end of the packet is defined by the mobile correctly receiving the expected number of packet slots.” Col. 12, lines 60-63.

In addition, in the present patent application the maximum number of slots used will vary depending on the data rate associated with the packet. “The data rate associated with the new packet determines the maximum number of slots that will be used to carry the packet.” See page 11, lines 4-6 of the specification of the present patent application. Claims 65, 71 and 73 have been amended to include the feature “wherein said maximum number of time slots is determined by said first data rate associated with said multi-slot packet” to clarify this distinction over the prior art.

Next, the Examiner admits that Gubbi is silent to disclosing attempting to decode the accumulated portions of the multi-slot packet; if the decode is successful, sending a Stop-Repeat message. On page 3, the Examiner continues by stating that “Goodings recognizes decoding the accumulated portions of the multi-slot packet; and if the decode is successful, sending a stop-repeat message.”

The Applicants respectively disagree with the Examiner. “The end of the packet is defined by the mobile correctly receiving the expected number of packet slots. The mobile will then automatically revert to monitoring the original set up channel DSU.” Col. 12, lines 60-63 of Goodings. Thus, when the accumulated portions of the multi-slot packet has been successfully decoded, Goodings does not send a Stop-Repeat message. Instead, “The mobile will then *automatically* revert to monitoring the original set up channel DSU.” (emphasis added) Col. 12, lines 62-63 of Goodings.

In the embodiment of present patent application described by claims 65, 71 and 73, a Stop-Repeat message is sent to indicate that the whole multi-slot packet has been decoded. “If the subscriber station successfully decodes the packet after a decoding period 312, the subscriber station sends a Stop-Repeat signal . . .” See page 15, lines 6-7 of the specification of the present patent application. This feature is used to prevent the same packet from being sent again if it has already been successfully decoded. On the other hand, Goodings sends an ACK as each slot of a packet is received. See col. 12, lines 52-54 of Goodings, “As each slot DTR1, DTR2 is received and decoded correctly, the mobile will transmit an ACK for the slot . . .” Thus, the combination of Gubbi and Goodings does not disclose “if the decode is successful, sending a Stop-Repeat message.” Claims 65, 71 and 73 have been amended to include the feature “if the packet decode is successful, sending a Stop-Repeat message” to clarify this distinction over the prior art.

Another reason why claims 65, 71 and 73 are not obvious is that neither Gubbi, nor Goodings disclose a multi-slot packet. Goodings discloses transmitting “...data in one or more

frames which contains data as a series of time multiplexed slots . . .” Col. 4, lines 31-33. On the other hand, Gubbi discloses transmitting various packets. “As shown, within a network frame 52, various packets (designated by the use of numbers within square brackets in the illustration) may be transmitted from one node to another . . .” See col. 7, lines 10-16 of Gubbi. Thus, combining Gubbi and Goodings does not address the feature of claims 65, 71 and 73, receiving portions of a multi-slot packet.

For all of the above stated reasons, claims 65, 71 and 73 are patentable over the combination of Gubbi and Goodings.

Claims 66 and 74

On page 5, the Examiner argues that “Goodings discloses if the decode is not successful, comparing the number of received portions to a maximum number of time slots for transmission; if the number of received portion is equal to a maximum number of time slots for transmission, send a continue-repeat message (see col. 12, lines 48-53, col. 17, lines 7-18 and lines 47-53).” Col. 17, lines 7-18 and lines 47-53 of Goodings discloses the sending of a NACK, a negative acknowledgment message, “...when the receiver detects a gap in the received TSI sequence.” Col. 17, lines 46-48. However, a continue-repeat message is sent when a multi-slot “...packet is not successfully decoded even after repeating the packet over the maximum number of time slots associated with the packet’s transmit data rate.” Page 20, lines 20-22 of the specification of the present patent application. Thus, in the present patent application, a continue-repeat message is sent to indicate that the entire multi-slot packet has not been decoded, not just one slot. Furthermore, the continue-repeat message is sent “...after repeating the packet over the maximum number of time slots associated with the packet’s transmit data rate.” Page 20, lines 20-22 of the specification of the present patent application. Both claims 66 and 73 have been amended to include this feature to clarify the differences between these claims and the prior art.

Furthermore, Goodings does not disclose “...comparing the number of received portions to a maximum number of time slots for transmission” as taught by claim 66. Thus, for all of the above stated reasons, claims 66 and 74 are patentable over the combination of Gubbi and Goodings. In addition, Claim 66 is also patentable because it depends on allowable claim 65 and claim 74 is patentable because it depends on allowable claim 73.

Claims 67, 75 and 76

On page 5, the Examiner admits that "...the combined system of (Gubbi-Goodings) is silent to disclosing the transmitter is further adapted to transmit a data rate control message requesting a data rate for transmission." The Examiner then states Kobayashi et al. discloses the transmitter is further adapted to transmit a data rate control message requesting a data rate for transmission (see col. 2, [0031][0032]). However, the Examiner has failed to address the following features of claims 67 and 75. Claim 67 discloses "...wherein the maximum number of time slots for transmission is based on the first data rate." Claim 75 discloses "...wherein the maximum number of time slots is based on the data rate." Since all the features of claims 67 and 75 are not disclosed by the combined system of (Gubbi-Goodings) in view of Kobayashi et al., claims 67 and 75 are patentable. Claim 67 is also patentable because it depends on allowable claim 66, and claim 75 is patentable because it depends on allowable claim 73. Claim 76 is also patentable because it depends on allowable claim 73.

Claims 68-69, 72, and 77

On page 6, the Examiner states that "Goodings, see figure 14, (col. 12, lines 48-53) discloses allocating a maximum number of time slots for transmission of a multi-slot packet . . ." Applicants respectfully disagree with the Examiner. Goodings discloses that "[t]he end of the packet is defined by the mobile correctly receiving the expected number of packet slots." Col. 12, lines 60-63.

Next, the Examiner admits that "Goodings is silent to disclosing receiving a stop-repeat message prior to expiration of the maximum number of time slots for transmission of the multi-slot packet; and terminating transmission of the multi-slot packet." However, the Examiner continues "Gubbi discloses, see figures 3, 8, receiving a stop-repeat message (ACK, acknowledgement message for [1] [2] [4]) prior to expiration of the maximum number (7) of time slots for transmission of the multi-slot packet ([1] [2] [4]); and terminating transmission of the multi-slot packet ([1], [2], [4]) (see col. 7, lines 15-26, lines 35-45)."

Applicants respectfully disagree with the Examiner. As stated above with respect to claims 65, 71 and 73, Gubbi does not disclose a multi-slot packet, but various packets within a network frame 52. See col. 7, lines 10-16 of Gubbi. Thus, Gubbi does not disclose the transmission of the individual slots of a multi-slot packet.

In addition, with respect to claim 77, the acknowledgement message of Gubbi is not a Stop-Repeat message as disclosed in claims 68-69, 72 and 77 "wherein the controller is further

adapted to terminate transmission of the multi-slot packet in response to the Stop-Repeat message.” Instead, Gubbi discloses “[p]ositive acknowledgements indicate successful receipt of data.” Col. 5, lines 14-15 of Gubbi.

For all of the above reasons, claims 68-69, 72 and 77 are not obvious in light of the combination of Gubbi and Goodings.

Claim 69

With respect to claim 69, Gubbi discloses “after expiration of the maximum number (7) of transmission of the multi-slot packet, receiving a continue-repeat message (NAK)” (see figures 3, 8, Col. 7, lines 15-26, 35-45. Gubbi discloses “The negative acknowledgements are an indication that a packet was not received. . . . The source node then retransmits the negatively acknowledged packets along with any new packets in the succeeding network frame 52.” Col. 7, lines 21-25. A NAK can be sent before repeating the packet over the maximum number of time slots. However, a continue-repeat message is sent when a multi-slot “...packet is not successfully decoded even after repeating the packet over the maximum number of time slots associated with the packet’s transmit data rate.” Page 20, lines 20-22 of the specification of the present patent application. In the cite provided by the Examiner, there is no mention of the maximum number (7) along with receiving a NAK. Thus, claim 69 is patentable over the combination of Gubbi and Goodings. Claim 69 is also patentable because it depends on allowable claim 68.

Furthermore, claim 69 is patentable over the combination of Gubbi and Goodings because Gubbi does not disclose a multi-slot packet, but various packets within a network frame 52. See col. 7, lines 10-16 of Gubbi. Thus, Gubbi does not disclose the transmission of the individual slots of a multi-slot packet.

Claim 70

On page 7, the Examiner states “Kobayashi et al. discloses the maximum number of time slots for transmission is based on the first data rate (see col. 2, [0031], [0032]).” Applicants respectfully disagree with the Examiner. Kobasyashi et al. discloses “...different data transfer rates (100, 200 and 400 Mbit/sec),...” See paragraph [0011]. Paragraph [0032] discloses determining “...whether or not to transmit . . . at a second transfer rate lower than the first transfer rate . . .” Kobasyashi does not disclose “wherein the maximum number of time slots for transmission is based on the first data rate” as disclosed in claim 70. Thus, claim 70 is patentable

over the combined system (Goodings-Gubbi) in view of Kobayashi et al. (U.S. Patent No. 2003/0179719).

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

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Respectfully submitted,

By: 

Larry J. Moskowitz, Reg. No. 42,911
(858) 651-4556

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-4125
Facsimile: (858) 658-2502